Idaho Panhandle Avalanche Center
Avalanche Advisory

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Good Morning, this is the Idaho Panhandle avalanche advisory, valid for today, April 2nd, 2010. This report does not apply to local ski areas within the forecast region and will remain in effect through midnight, April 2nd. Thanks to all those who submitted avalanche observations and pit data and helped with increasing our awareness of avalanche safety this year. Your participation is highly valuable and much appreciated. This advisory is sponsored by Idaho Parks and Recreation.

WEATHER

Once again we have seen weather cycles repeating with big storms early in the week, moderating weather mid-week, and predicted severe weather into the weekend. Recall the big blow, with 70+ mph ridgetop winds, that occurred Sunday evening into Monday. 6-10 inches of snow was associated with that storm deposited on a very firm ice crust. This influenced a widespread natural avalanche cycle with wind-deposited snow sliding on the crust. Spring squalls added patchy new snowfall to some areas so you'll find 4-6 inches of snow above the firm crust. Cold nighttime temperatures have been weakening the snow beneath the crust, which is breakable in places, which means bad layering existing in the upper 1 foot of the pack that will be loaded with the next storm system. I won't get too much into the details of the forecasted weather and will provide the link to Spokane National Weather Service (http://www.wrh.noaa.gov/otx/). The complexities of weak layer distribution are more important to explain today, so suffice it to say that the NWS has issued a Winter Storm Warning. In the 24 hour period from 11am today until 11am Saturday morning we can expect 6-9 inches of new snow above 3,000 feet with local accumulations of 1 foot possible. Strong winds will blow out of the W/SW with gusts as high as 40mph. Short term forecast models show that intense weather could continue into Saturday evening. **If we do experience the predicted snowfall amounts and strong winds the avalanche hazard could increase to high.**

Avalanche conditions for the Selkirk and Cabinet Mountains are rated as <u>MODERATE</u> on windloaded aspects greater than 35 degrees above 5,500 feet. Natural avalanches are unlikely and human triggered avalanches are **<u>possible</u>**. **Avalanche conditions are rated as <u>LOW</u> on slopes less than 35 degrees.** Avalanche conditions could increase to **HIGH** with the new snow loading and strong westerly winds expected today with the next winter storm.

<u>Snowpack</u>

Access to the mountains is getting a little dirty but once we got up to the ridgetops we observed numerous natural slab avalanches on NE, N, and NW aspects. These slides

most likely ran on the windloaded snow that was deposited on the rain crust earlier in the week. This layer has stabilized since then but not sufficiently that it wouldn't slide under your weight. We also triggered a failure in a deeper layer of faceted snow over a crust that was 1.5 feet deep and it failed with a guttural WHUMPH that got our attention, right now. This weak layer was on an east aspect and we triggered the failure from the ridgetop in weaker snow where the crust layers did not exist in the pack and the fracture shot out onto the 35 degree slope. New storm snow will load this weak layer and it will also load the light surface snow, which is 4-6 inches deep, over the rain crust. In our pit tests we were getting consistent easy shears on multiple aspects in faceted snow with graupel under the rain crust at about 6 inches deep. There could also be a light formation of surface hoar from last night to make matters worse.

Terrain

Highly variable snowpack but be thinking about weak spots in the snow around ridgetops. We tried to trigger more whumphs but couldn't and this has us thinking that the avalanche problem is not easy to pinpoint but weak spots do exist on NW, N, NE, and E aspects. With the new snow we may be seeing natural avalanches running on the buried upper crust, especially on windloaded aspects. Be cautious in steeper terrain anywhere new snow is accumulating over the lighter snow on the upper crust.

Avalanche conditions for the St. Regis Basin are rated as CONSIDERABLE on wind-loaded aspects greater than 35 degrees above 5,500 feet (natural avalanches are possible and human triggered avalanches are **probable**) **and MODERATE below 5,500 feet (**Natural avalanches are unlikely and human triggered avalanches are **possible**)**. Avalanche conditions are rated as LOW on slopes less than 35 degrees.** Natural and human triggered avalanches are unlikely. Avalanche conditions could increase to **HIGH** with the new snow loading and strong westerly winds expected today with the next winter storm.

Snowpack

Dan was in and around the Basin yesterday and found multiple weak layers in the pack that reacted with moderate force applied. There is a concern for deep instability associated with the buried surface hoar layer and the Missoula Avalanche Center has been reporting continued problems with this. See Steve's report of the accident that occurred Saturday at Missoula Lake (http://www.missoulaavalanche.org/advisories/). Dan was also concerned about wind slabs that have been deposited at the higher elevations during the previous storms. If the snow and wind arrives as predicted, the avalanche hazard may increase at most areas above 35 degrees at the higher elevations.

Terrain

Reports of rotten snow have been more prevalent in and around the Basin. You'll notice it by probing your pole into the snow or reaching down with your arm and feeling

how sugary and loose it is. Your weight can easily penetrate to deeper weak layers in rotten snow. If you find your traveling over firmer snow be aware that you could encounter weak spots in the snow especially around rock outcrops, terrain convexities, and wind-scoured ridgetops. New snow will load surface weak layers and if triggered could propagate to deeper weak layers.

Forecasting for the St. Joe region has ended for the 2010 season. Ed is back in timber mode.

This is the last advisory issued this season. Next week we will issue the general spring travel tips.

Avalanche conditions change for better or worse continually. Backcountry travelers should be prepared to assess current conditions for themselves, plan their routes of travel accordingly, and never travel alone. Backcountry travelers can reduce their exposure to avalanche hazards by utilizing timbered trails and ridge routes and by avoiding open and exposed terrain with slope angles of 30 degrees or more. Backcountry travelers should carry the necessary avalanche rescue equipment such as a shovel, avalanche probe or probe ski poles, a rescue beacon and a well-equipped first aid kit.

Have a safe and pleasant weekend.